result. The number of subjects who have achieved protective levels of anti-Hib immunoglobulin as shown in Table VII is consistently 10% higher in the NUC group. The three-way comparison does not show a statistical difference. However, a two-way comparison between the NUC and CON formula groups at 7 months is significant ($P<0.05$).

An additional piece of data comes from two of the clinical sites which chose to collect morbidity data. As part of the study the incidence of diarrhea was determined at the two clinical study sites. Of 26 infants fed the NUC formula, only two reported diarrhea while 10 of 29 reported diarrhea in the CON formula. The $_x^2$ analysis comparing the incidence of diarrhea in infants fed the two formulas is significant ($P<0.05$). In summary, the improved response to vaccination, the higher percent of subjects who have protective levels of antibodies, and the reduced incidence of diarrhea show that infants consuming the nucleotide-fortified formula according to this invention achieve enhanced immunological development as compared to those consuming the control formula.

INDUSTRIAL APPLICABILITY

The results from these experiments demonstrate that the enteral formula of this invention is effective in enhancing the immune system and treating diarrhea. The medical community is constantly searching for nutritional formulas that will benefit the infant. The present invention can clearly fill that need. The nucleotide equivalent level of the formula in the study is about the minimum for efficacious effect. Additionally, the formula is nutritionally complete as an infant formula. The manufacture of the formula utilizes conventional equipment and may be readily accomplished.

While the infant formula and method of making said formula herein described constitute a preferred embodiment of this invention, it is to be understood that the invention is not limited to this precise formulation or method and that changes may be made therein without departing from the scope of the invention which is defined in the appended claims.

What is claimed is:

1. An infant formula, said formula comprising:

1) protein, said protein being of a concentration of between 10 and 35 grams per liter of formula;

2) fat, said fat being of a concentration of between 20 and 45 grams per liter of formula;

3) carbohydrates, said carbohydrates including those from total dietary fiber being of a concentration of between 60 and 110 grams per liter of formula; and

4) at least 70 mg of nucleotide equivalents per liter of formula, and wherein said nucleotide equivalents are nucleotide equivalents of each of adenosine, cytidine, guanosine and uridine; and wherein the concentration of said cytidine nucleotide equivalents are in the range of from 29 to 39 mg/liter of said formula, the concentration of said uridine nucleotide equivalents are in the range of from 15 to 20 mg/liter of said formula, the concentration of said adenosine nucleotide equivalents are in the range of from 10 to 15 mg/liter of said formula, and the concentration of said guanosine nucleotide equivalents are in the range of from 14 to 20 mg/liter of said formula.

2. The infant formula as claimed in claim **1** wherein the source of protein is selected from the group consisting of condensed skim milk, non-fat milk, acid whey and cheese whey.

3. The infant formula as claimed in claim **1** wherein said protein is of a concentration of between 13 and 20 grams per liter of formula and consists of 50–70% by weight condensed skim milk and 30–50% by weight cheese whey.

4. The infant formula as claimed in claim **1** wherein said fat is selected from the group consisting of soy oil, coconut oil, corn oil, safflower oils, saltwater fish, egg yolk oils, sunflower oils fungal oils or blends thereof.

5. The infant formula as claimed in claim **4** wherein said fat is of a concentration of between 24 and 38 grams per liter of formula and consists of a blend of high oleic safflower oil, soy oil and coconut oil.

6. The infant formula as claimed in claim **1** which additionally comprises an antioxidant system, said antioxidant system consisting of R,R,R, α-tocopherol at a concentration of 10 to 30 IU per liter of formula, β-carotene at a concentration of 375 to 575 μg per liter of formula and selenium at a concentration of 14 to 32 mcg per liter of formula.

7. The infant formula as claimed in claim **1** wherein said protein is of a concentration of between 13 and 16 grams per liter of formula, said fat is a blend of soy oil, high oleic safflower oil and coconut oil and said carbohydrate is of a concentration of between 65 and 85 grams per liter of formula and consists of lactose.

8. An infant formula which comprises a source of amino nitrogen, carbohydrates, edible fats, minerals and vitamins the improvement characterized in a composition comprising at least one member selected from each of the groups (a), (b), (c), and (d):

(a) uridine, uridine phosphates and mixtures thereof at a concentration of from 15 to 20 mg/l of formula;

(b) guanosine, guanosine phosphates and mixtures thereof at a concentration of from 14 to 20 mg/l of formula;

(c) adenosine, adenosine phosphates and mixtures thereof at a concentration of from 10 to 15 mg/l of formula; and

(d) cytidine, cytidine phosphates and mixtures thereof at a concentration of from 29 to 39 mg/l of formula;

wherein the total amount of the composition is at least 70 mg per liter of formula.

9. An infant formula, said formula comprising:

1) protein, said protein being of a concentration of between 10 and 35 grams per liter of formula;

2) fat, said fat being of a concentration of between 20 and 45 grams per liter of formula;

3) carbohydrates, said carbohydrates including those from total dietary fiber being of a concentration of between 60 and 110 grams per liter of formula; and

4) at least 70 mg of nucleotide equivalents per liter of formula and said nucleotide equivalents are selected from the group consisting of RNA; mono-, di- and triphosphate esters of adenosine, cytidine, guanosine and uridine; and wherein the weight ratio of said cytidine nucleotide equivalents to said uridine nucleotide equivalents is at least 1.5:1; of said cytidine nucleotide equivalents to said adenosine nucleotide equivalents is at least 2:1; and of cytidine nucleotide equivalents to said guanosine equivalents is at least 1.75:1; and wherein the concentration of said cytidine nucleotide equivalents are in the range of from 29 to 39 mg/liter of said formula, the concentration of said uridine nucleotide equivalents are in the range of from 15 to 20 mg/liter of said formula, the concentration of said adenosine nucleotide equivalents are in the range of from 10 to 15 mg/liter of said formula, and the concentration of said guanosine nucleotide equivalents are in the range of from 14 to 20 mg/liter of said formula.

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